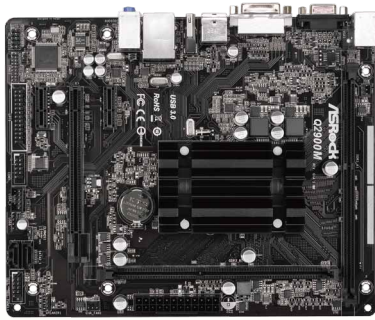


Q2900M

Intel® Quad-Core Pentium® Processor J2900

ASRock



Product Brief

- Intel® Quad-Core Pentium® Processor J2900
- All Solid Capacitor design
- Supports DDR3 1333 Long DIMM Slots
- 1 PCIe 2.0 x16, 2 PCIe 2.0 x1
- Graphics Output Options : D-Sub, DVI-D, HDMI
- Built-in Intel® 7th generation (Gen 7) graphics, DirectX 11.0, Pixel Shader 5.0
- 1 x Printer Port Header, 1 x COM Port Header
- 1 x USB 3.0, 6 x USB 2.0 (3 x Front, 3 x Rear), 2 x SATA2
- Realtek Gigabit LAN
- 5.1 CH HD Audio (Realtek ALC662 Audio Codec)
- Supports ASRock Cloud, APP Shop, Full Spike Protection



Detail Specification

Platform	<ul style="list-style-type: none">- Micro ATX Form Factor- All Solid Capacitor design- High Density Glass Fabric PCB	Connector	<ul style="list-style-type: none">- 1 x Print Port Header- 1 x COM Port Header- 1 x TPM Header- 1 x Chassis Intrusion Header- 1 x CPU Fan Connector (3-pin)- 1 x Chassis Fan Connector (3-pin)- 1 x 24 pin ATX Power Connector- 1 x Front Panel Audio Connector- 2 x USB 2.0 Headers (Support 3 USB 2.0 ports) (Supports ESD Protection (ASRock Full Spike Protection))
Unique Feature	<ul style="list-style-type: none">ASRock Full Spike ProtectionASRock CloudASRock APP Shop	BIOS Feature	<ul style="list-style-type: none">- 64Mb AMI UEFI Legal BIOS with GUI support- Supports Plug and Play- ACPI 1.1 compliant wake up events- Supports jumperfree- SMBIOS 2.3.1 support
CPU	<ul style="list-style-type: none">- Intel® Quad-Core Pentium® Processor J2900 (2.41 GHz)	Support CD	<ul style="list-style-type: none">- Drivers, Utilities, AntiVirus Software (Trial Version), Google Chrome Browser and Toolbar, Start8 (30 days trial), Orbweb.ME Professional (Win 8.1 / 7)
Memory	<ul style="list-style-type: none">- Dual Channel DDR3/DDR3L Memory Technology- 2 x DDR3/DDR3L DIMM Slots- Supports DDR3/DDR3L 1333/1066 non-ECC, un-buffered memory- Max. capacity of system memory: 16GB* If only one DIMM module is installed, please install it into DDR3_A1.	Unique Feature	<p>Software</p> <ul style="list-style-type: none">- ASRock A-Tuning- ASRock USB Key- ASRock XFast LAN- ASRock XFast RAM- ASRock Restart to UEFI <p>UEFI</p> <ul style="list-style-type: none">- ASRock Instant Flash- ASRock Internet Flash- ASRock Crashless BIOS
Expansion Slot	<ul style="list-style-type: none">- 1 x PCI Express 2.0 x16 Slot (PCIe2 @ x1 mode)- 2 x PCI Express 2.0 x1 Slots	Hardware Monitor	<ul style="list-style-type: none">- CPU/Chassis temperature sensing- CPU/Chassis Fan Tachometer- CPU/Chassis Quiet Fan (Auto adjust chassis fan speed by CPU temperature)- CPU/Chassis Fan multi-speed control- CASE OPEN detection- Supports CPU Fanless- Voltage monitoring: +12V, +5V, +3.3V, CPU Vcore
Graphics	<ul style="list-style-type: none">- Intel® 7th generation (Gen 7) graphics- DirectX 11.0, Pixel Shader 5.0- Three graphics output options: D-Sub, DVI-D and HDMI- Supports HDMI Technology with max. resolution up to 1920x1200 @ 60Hz- Supports DVI-D with max. resolution up to 1920x1200 @ 60Hz- Supports D-Sub with max. resolution up to 1920x1200 @ 60Hz- Supports Auto Lip Sync, Deep Color (12bpc), xvYCC and HBR (High Bit Rate Audio) with HDMI Port (Compliant HDMI monitor is required)- Supports HDCP with DVI-D and HDMI Ports- Supports Full HD 1080p Blu-ray (BD) playback with DVI-D and HDMI Ports	OS	<ul style="list-style-type: none">- Microsoft® Windows® 8.1 32-bit / 8.1 64-bit / 8 32-bit / 8 64-bit / 7 32-bit / 7 64-bit
Audio	<ul style="list-style-type: none">- 5.1 CH HD Audio (Realtek ALC662 Audio Codec)- Supports Surge Protection (ASRock Full Spike Protection)	Certifications	<ul style="list-style-type: none">- FCC, CE, WHQL- ErP/EuP ready (ErP/EuP ready power supply is required)
LAN	<ul style="list-style-type: none">- PCIe x1 Gigabit LAN 10/100/1000 Mb/s- Realtek RTL8111GR- Supports Wake-On-WAN- Supports Wake-On-LAN- Supports Lightning/ESD Protection (ASRock Full Spike Protection)- Supports LAN Cable Detection- Supports Energy Efficient Ethernet 802.3az- Supports PXE	Accessories	<ul style="list-style-type: none">- Quick Installation Guide, Support CD, I/O Shield- 2 x SATA Data Cables
Rear Panel I/O	<ul style="list-style-type: none">- 1 x PS/2 Mouse Port- 1 x PS/2 Keyboard Port- 1 x D-Sub Port- 1 x DVI-D Port- 1 x HDMI Port- 3 x USB 2.0 Ports (Supports ESD Protection (ASRock Full Spike Protection))- 1 x USB 3.0 Port (Supports ESD Protection (ASRock Full Spike Protection))- 1 x RJ-45 LAN Port with LED (ACT/LINK LED and SPEED LED)- HD Audio Jacks: Line in / Front Speaker / Microphone		
Storage	<ul style="list-style-type: none">- 2 x SATA2 3.0 Gb/s Connectors, support NCQ, AHCI and Hot Plug		

The specification is subject to change without notice. The brand and product names are trademarks of their respective companies. Any configuration other than the original product specification is not guaranteed.

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ASRock Cloud



ASRock Cloud* technology makes your mobile devices connect to your PC seamlessly and supports multi devices for accessing File Explorer cloud service simultaneously! We offer a one-year subscription to Orbweb.ME Professional version, a personal cloud service which is \$49.99 per year. It allows you to get connected with your PC's files, music, photos, and video clips remotely with tablets anytime, anywhere. Plus an additional one-month upgrade to Orbweb.ME Ultimate package with Remote Desktop function.



* OrbWeb ME is provided by a third party. Restriction may apply and the offer is subject to change, termination or discontinuation by the third party without prior notice. Please visit the website for further details: <http://www.asrock.com/feature/cloud/index.html>

Micro ATX



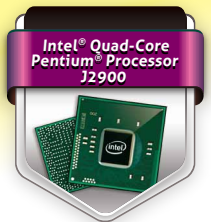
Unlike other mini-ITX counterparts, this motherboard is uniquely based on micro ATX form factor and therefore offers more choices for choosing a chassis. The ground breaking build design, rich upgrade options and sufficient graphics outputs lined up on this micro ATX motherboard makes it different from others.

DDR3 LONG DIMMs



ASRock is the only one who adds two standard DDR3 Dual Channel Long DIMM slots onboard! Compared to the default SO-DIMM slots, Long DIMM design provides more than enough DRAM module choices and also reserves huge potential for future upgrades.

Intel® Quad-Core Pentium® Processor J2900



Intel® Quad-Core Pentium® Processor J2900 brings whole new computing experiences to life with improved performance, lower power consumption, and new multimedia capabilities.

Supports Standard & Low Voltage LONG DIMM



Compared with other counterparts that support DDR3 low-voltage memory modules only, this motherboard is capable of supporting both standard and low-voltage memory modules, therefore provides more DRAM compatibilities.

Supports Windows 7 & 8/8.1



This motherboard supports not only Windows 8/8.1 but also Windows 7 32-bit/64-bit. Therefore, users have more options to install their operating systems.

Fanless Design



The CPU is covered by a specially designed heatsink which allows advanced heat dissipation. Utilizing an ultra quiet fanless design, this ASRock motherboard provides the most silent computing environment.

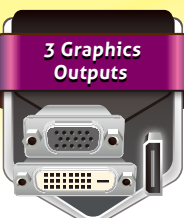
ASRock App Shop



We provide various apps and support software for users to download. You can easily optimize your system and keep your motherboard up to date with ASRock APP Shop.



3 Graphics Outputs



Complete with all three types of most used connectors! Packed with a D-Sub + DVI + HDMI combo. Plus the HDMI port supports Full HD 1080p Blu-ray (BD) playback.

All Solid Capacitor Design



All capacitors on this board are solid capacitors. With these solid caps, ASRock motherboards are allowed to perform more stably and ensure longer lifetime.

Durability



High Expandability



The USB 3.0 5Gb/s port supports all of your peripherals with fast data transfer speed!

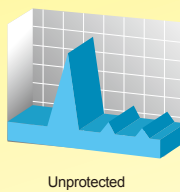
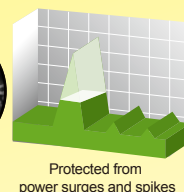


FULL SPIKE PROTECTION



Surge Protection

Protects the motherboard from excessive surges from the power supply unit.



Lightning Protection

The onboard LAN chip is protected against sudden and violent voltage spikes caused by lightning.



■ Anti-Lightning LAN IC ■ Traditional LAN IC



ESD Protection

USB

Added ICs to protect the onboard USB ports from electrostatic discharges.



For USB 2.0



For USB 3.0

LAN

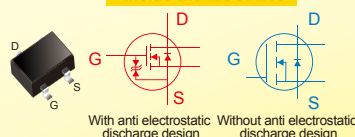
Prevents the onboard LAN from being damaged by electrostatic discharges.



MOSFETs

MOSFETs in critical areas use a special design for protecting them from electrostatic discharge during the installation process.

Inside the MOSFETs



ESD Protection* 2KV v.s. 200V



■ With anti electrostatic discharge design ■ Without anti electrostatic discharge design

* Human Body Mode



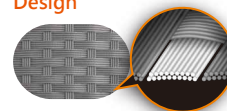
ASRock motherboards feature a new High Density Glass Fabric PCB design that reduces the gaps between the PCB layers to protect the motherboard against electrical shorts caused by humidity.

Short Circuit Protection Level

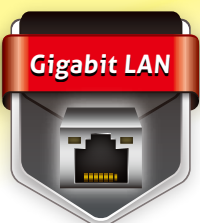


■ High Density Glass Fabric PCB ■ Traditional Glass Fabric PCB

High Density Design



Traditional



This motherboard uses a Realtek gigabit LAN chip to support extremely fast internet connections.

Gigabit LAN v.s. 10/100 Ethernet

10X Faster

Gigabit LAN 10/100/1000 Mb/s
10/100 Ethernet 10/100 Mb/s



A-Tuning

A-Tuning is ASRock's multi purpose software suite with a new interface, more new features and improved utilities, including XFast RAM and a whole lot more.